CHARGE NO: 1503
PROGRAM TITLE: Modified Smoking Materials
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I. Salt Casing (J. Leik)[1]

Objective: Determine effect of salt casings of MF filler on smoke components.

Status: It has been demonstrated that delivery of smoke components (FTC tars, NO, CO, HCN, RCHO, nicotine) can be altered by addition to the filler of monovalent cations, K^{+} and Na^{+}, and divalent cations, Ca^{+2} and Mg^{+2}.

Plans: A report will be issued with detailed results of this study.

II. Tobacco Extrusion (G. H. Burnett)[2]

Objective: Extrude a foamed, low density tobacco rod using laboratory (small scale) extruders.

Status: Trials using the Wayne plastic extruder with various screw configurations and operating conditions were not successful in producing a foamed rod.

Plans: Another small extruder will be evaluated for lab scale formulation studies.

III. CT Treatments (S. E. Wrenn, J. Leik)[3]

Objective: Evaluate steam pressure treated class tobacco for application onto other tobacco material.

Status: Pectin isolated from steam pressure treated class tobacco has a lower relative viscosity than pectin from the untreated tobacco. Because the pectin of the treated material has smaller chain length, it may be more soluble, increasing the "gummy" character of a slurry made from class tobacco.

Plans: Evaluate adhesion of pressure treated class tobacco by spraying onto stem material.

IV. Other Studies

- Magnesium Ammonium Phosphate system when applied to tobacco sheet or filler may enhance stiffness.[4]

- SGP (starch graph polymer) sprayed onto tobacco filler tends to decrease tobacco fall-out.[4]

- Extruded tobacco rods will be characterized as to density, pore size distribution and closed/open cell volume.[4]

REFERENCES:

1. J. W. Leik, Notebook No. 7644, pp 84
2. G. H. Burnett, Notebook No. 7786, pp 127-128, 131-133, 136
3. S. E. Wrenn, Notebook No. 7856, pp 42
   J. W. Leik, Notebook No. 7644, pp 136, 137, 142
4. N. B. Rainer, Notebook No. 7697, pp 96

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